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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/620,134 | 07/20/2000 | Srinivasa L. Iyer | 2992-12 | 2823 |

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Nixon & Vanderhye PC
8th Floor
1100 North Glebe Road
Alexandria, VA 22201-4714

EXAMINER

NGUYEN, CHI Q

ART UNIT

PAPER NUMBER

3635

DATE MAILED: 01/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/620,134

Applicant(s)

IYER, SRINIVASA L.

Examiner

Chi Q Nguyen

Art Unit

3635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 18) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Regarding claim 1, the limitation recite as "wherein a Poisson's ratio of the tubular housing is less than the solid material" renders the claim indefinite because it is a statement of desired result with no specific structure to attain it.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-13, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oliphant (U.S. Pat. No. 5,761,875) in view of Schwager (U.S. Pat. No. 5,960,597) and Welborn (U.S. Pat. No. 3,086,273).

With regards claims 1-13, 21 Oliphant (-875) discloses a reinforced concrete pole with attachment mechanism having a geometrically tubular housing 10 filled with a concrete material 32, a plurality of reinforcing steel rods 26 (see Fig. 5).

Oliphant does not disclose expressly and specifically a construction having at least one reinforcing rod is stressed using a pre and post tension method.

Welborn (-273) and Schwager (-597) teach a method for pre and post tension method, respectively. At the time of the invention, it would have been obvious to a person of

ordinary skill in the art to combine Oliphant, Welborn and Schwager. The motivation for doing so would have been to provide more accurate control of the tension for the reinforced rods.

5. Claims 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oliphant (-875) in view of Welborn (-273) and Schwager (-597).

With regards claims 14-20, Oliphant disclosed a reinforced concrete pole with attachment mechanism having a geometrically tubular housing 10 with a concrete material 32, a plurality of reinforcing steel rods 26. Welborn and Schwager also teach a method of pre and post tensioning for reinforced rods. However, Oliphant, Welborn and Schwager did not teach the deck system comprising a plurality of construction beams secured side-to-side, at least one transverse aperture. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have more than one of the similar structures of form a deck and could be modified a Welborn's concrete tubular structure to have openings at the transverse reinforced rods. The suggestion for doing so would have been to provide the interconnection between tubular concrete structures.

6. With regards method claims 17-20, and 22 Oliphant, Welborn and Schwager disclosed the structural elements for the reinforced rod concrete. However, Oliphant, Welborn and Schwager do not explicitly teach a method of forming a construction beam wherein a Poisson's ratio of the tubular housing is less than the solid material in thereby confines the solid material. Examiner considers it inherent from the structure disclosed by Oliphant, Welborn and Schwager that the same method indicated in claims 17-20

and 22, except for the using of a Poisson's formula to obtain the ratio of the tubular housing is less than the solid material, since it have been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

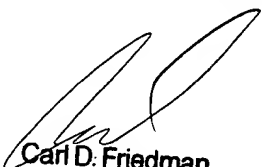
Response to Arguments

7. Applicant's arguments filed on 11/23/01 have been fully considered but they are not persuasive because Applicant argues that the rejection fails the address the limitation of the claimed Poisson's ratio. As presented in the claims, Poisson's ratio is considered a matter of desired results rather than a specific structural limitation. Applicant did not claim any specific structure to attain this result and as indicated at the beginning of this action, is considered indefinite. Applicant cannot merely claim a desired result and expect the general public to determine how to meet it.

Conclusion

8. Any inquiry concerning this communication should be directed to Chi Q. Nguyen whose telephone number is (703) 605-1224, Monday-Thursday (7:00-5:00), Fridays off or the examiner's supervisor Carl D. Friedman at (703) 308-0839.

CQN 1/14/02


Carl D. Friedman
Supervisory Patent Examiner
Group 3600